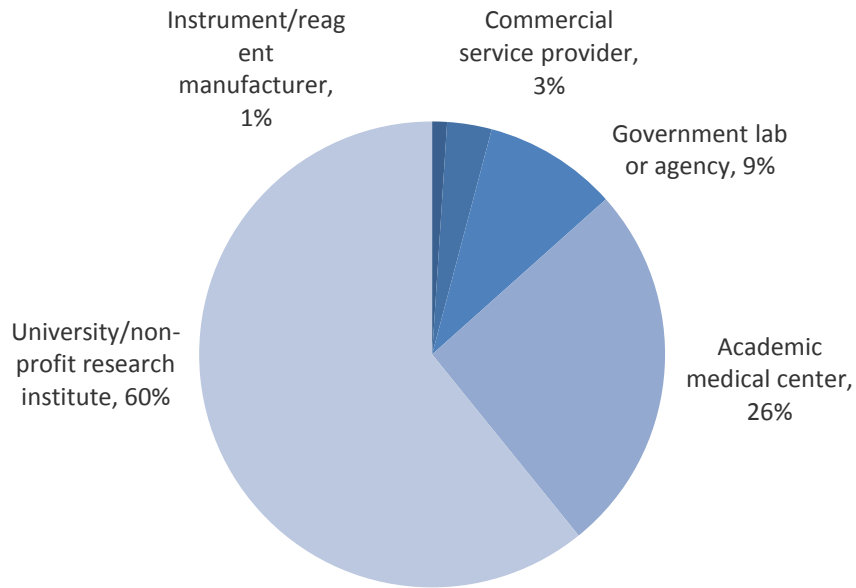


## IN SEQUENCE SURVEY 2012: SUPPLEMENTARY INFORMATION

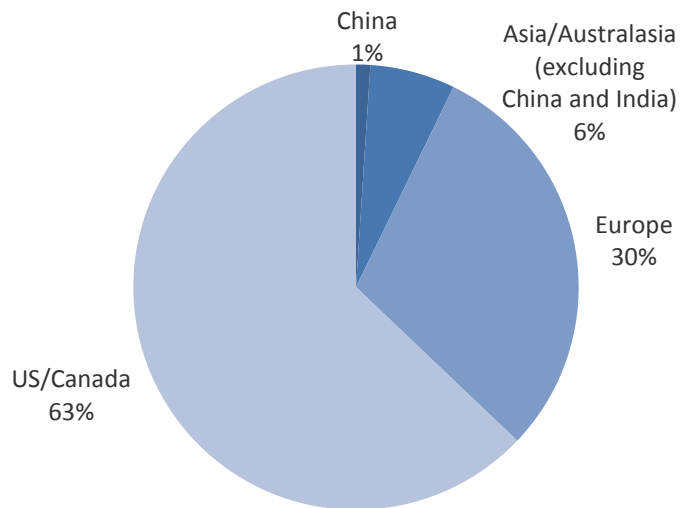
### SECTION 1: RESPONDENT DEMOGRAPHICS

#### What kind of organization are you part of?



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 98

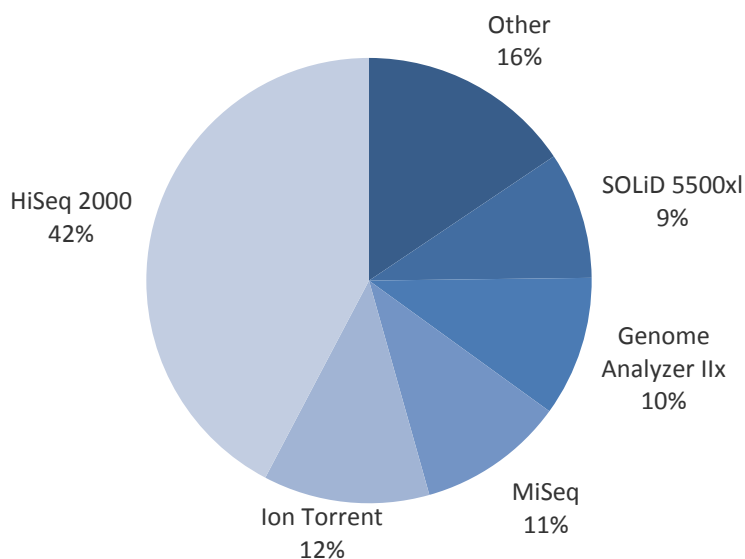
#### Where are you based?



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 98

## SECTION 2: SEQUENCING MARKET SHARE AND MARKET SENTIMENT

### Overall Market Share

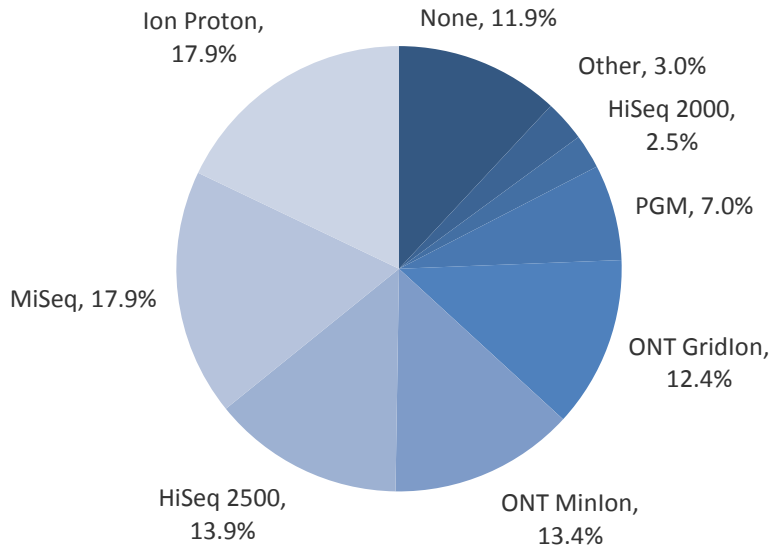


Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 115

### How many of the following "large box" and "desktop" sequencers do you operate?

	1	2	3-5	6-10	11-20	21-50	50+
HiSeq 2500	2	2	0	1	0	0	0
HiSeq 2000	35	8	9	3	2	2	1
HiSeq 1000	2	0	0	0	0	0	0
Genome Analyzer IIx	23	7	1	1	1	0	0
HiScanSQ	4	0	0	0	0	0	0
PacBio RS	13	1	0	0	0	0	0
GS FLX+	14	2	1	0	0	0	0
GS FLX	8	2	1	0	0	0	0
GS Junior	9	0	0	0	0	0	0
SOLiD 5500xl	5	5	2	0	0	1	0
SOLiD 5500	1	1	0	0	0	0	0
SOLiD 4	3	0	0	0	0	0	0
SOLiD 3 or 3 Plus	1	0	0	0	0	0	0
Ion Torrent — PGM	32	8	5	1	0	0	0
Ion Torrent — Proton	1	0	2	0	0	0	0
MiSeq	25	9	4	1	0	0	0

**What sequencing platform(s) are you considering buying in the next 12 months?**

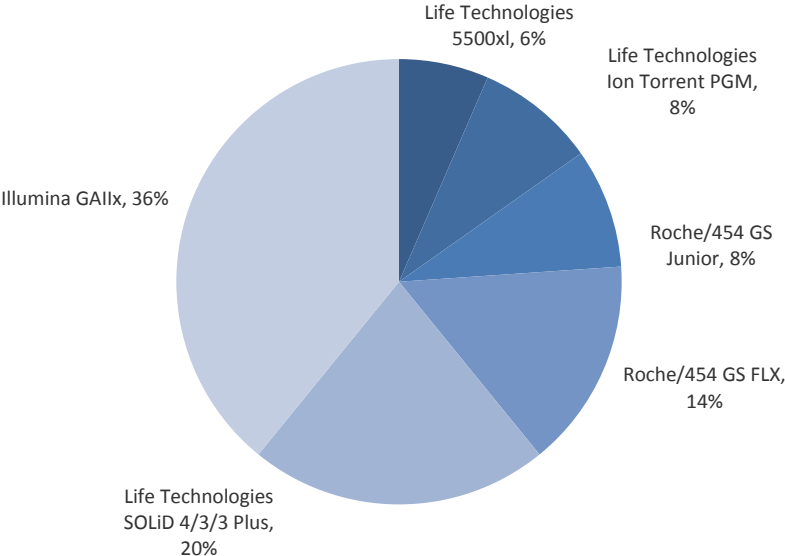


Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 102

**What sequencing platform(s) are you considering buying in the next 12 months?**

	Response Percent	Response Count
Illumina HiSeq 2500	28%	28
Illumina HiSeq 2000	5%	5
Illumina HiSeq 1000	0%	0
Illumina MiSeq	35%	36
Illumina Genome Analyzer IIx	0%	0
Illumina HiScanSQ	0%	0
Life Technologies Ion Torrent PGM	14%	14
Life Technologies Ion Torrent Proton	35%	36
Life Technologies 5500xl	0%	0
Life Technologies 5500	0%	0
Roche/454 GS FLX+	0%	0
Roche/454 GS FLX	0%	0
Roche/454 GS Junior	1%	1
Pacific Biosciences PacBio RS	1%	1
Oxford Nanopore Technologies Gridlon	25%	25
Oxford Nanopore Technologies Minlon	27%	27
Intelligent Bio-Systems/Azco Max-Seq	2%	2
Intelligent Bio-Systems/Azco Mini-20	0%	0
GnuBio sequencer	2%	2
LaserGen sequencer	0%	0
None / NA	24%	24

**What sequencing platform(s) did your lab retire or stop using over the last 12 months?**



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 80

### SECTION 3: PLATFORM PERFORMANCE ASSESSMENT

#### Summary: Platform Performance versus Expectations for 'Large Box' Systems

	HiSeq 2000	SOLiD	Roche	PacBio
Throughput	0.44	0.09	-0.29	0.13
Accuracy	0.32	0.45	0.24	0.00
Satisfaction with service	0.27	0.45	-0.05	0.25
Ease of sample prep	0.20	-0.09	-0.43	0.00
Read length	-0.02	-0.18	0.33	0.75
Amount of uptime	-0.05	0.00	0.00	-0.25
Ease of data analysis	-0.08	-0.27	0.24	0.14
Reliability	-0.10	0.18	-0.19	-0.50
Instrument price	-0.28	-0.18	-0.10	-0.43
Reagent price	-0.31	-0.40	-0.45	-0.14
Run time	-0.32	0.00	0.21	0.38
<b>Average</b>	<b>0.01</b>	<b>0.00</b>	<b>-0.04</b>	<b>0.03</b>

Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 43.

Note: +1 = "Above Expectations;" -1 = "Below Expectations." Blue = +1 standard deviation from average; Orange = -1 standard deviation from average.

#### Summary: Platform Performance versus Expectations for Desktop Systems

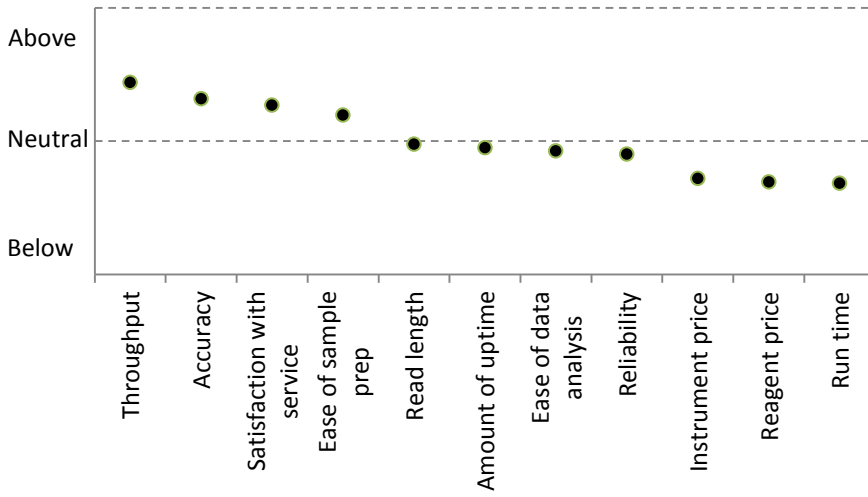
	MiSeq	Ion Torrent
Ease of sample prep	0.50	-0.13
Throughput	0.45	0.37
Satisfaction with service	0.36	0.10
Accuracy	0.32	-0.33
Read length	0.29	0.33
Run time	0.18	0.27
Ease of data analysis	0.18	0.21
Instrument price	0.10	0.33
Amount of uptime	0.05	0.31
Reliability	0.05	0.07
Reagent price	-0.09	0.07
<b>Average</b>	<b>0.22</b>	<b>0.14</b>

Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 31.

Note: +1 = "Above Expectations;" -1 = "Below Expectations." Blue = +1 standard deviation from average; Orange = -1 standard deviation from average.

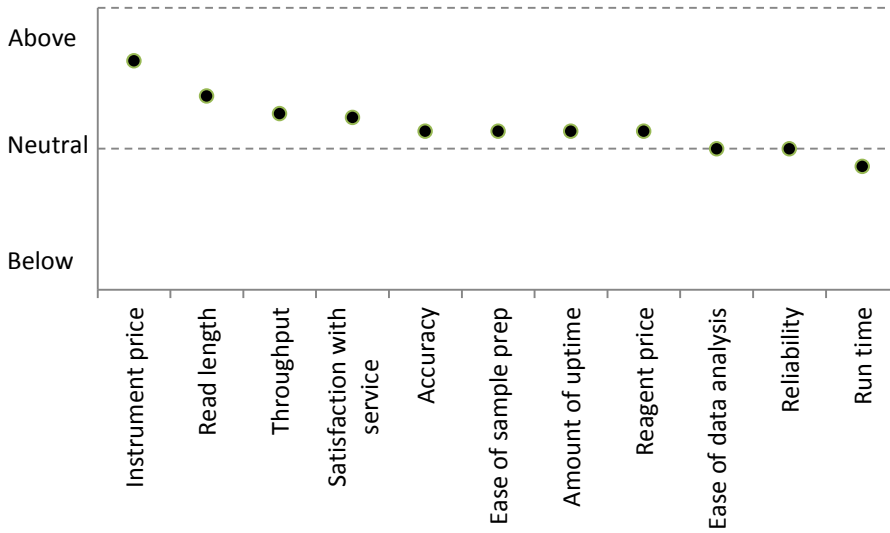
## Instrument-Specific Performance Assessments

Does the HiSeq 2000 perform above, below or in line to your expectations on the following metrics?



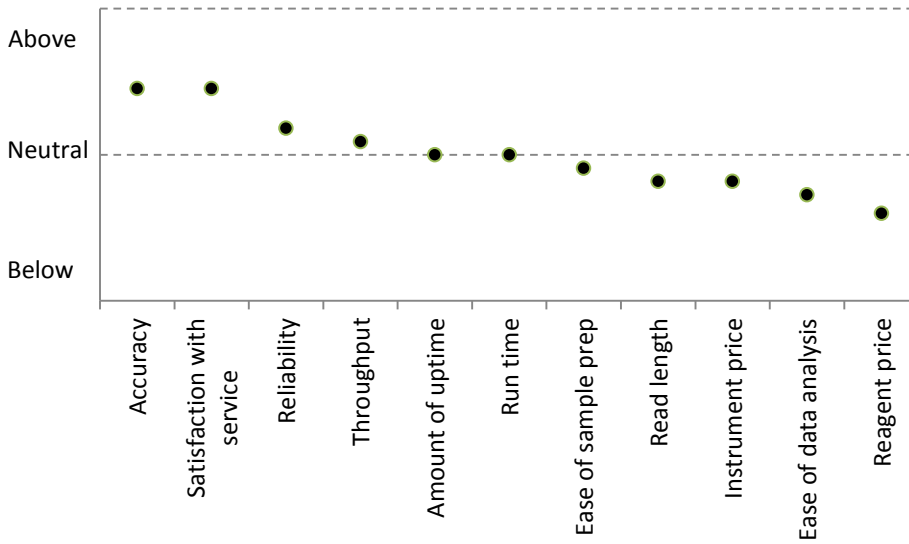
Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 43.

Does the Genome Analyzer IIx perform above, below or in line to your expectations on the following metrics?



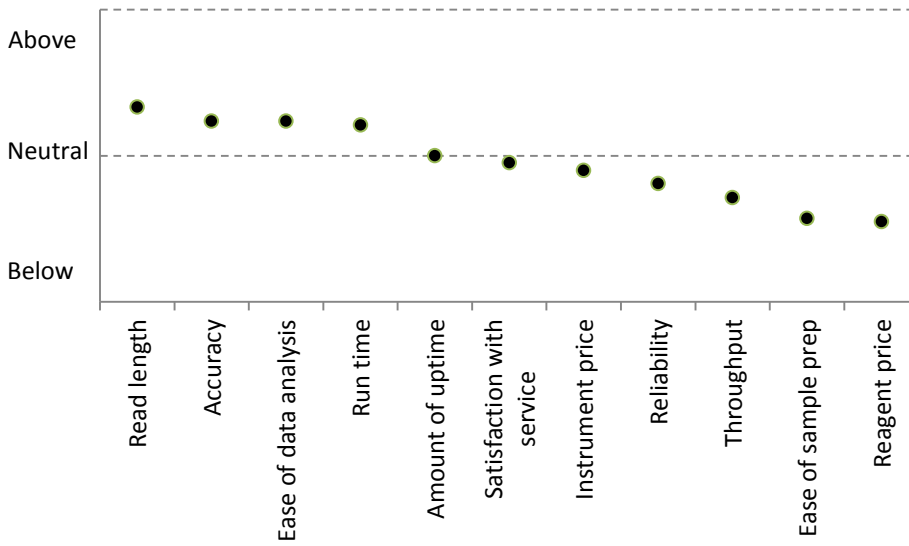
Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 9

Does the SOLiD perform above, below or in line to your expectations on the following metrics?



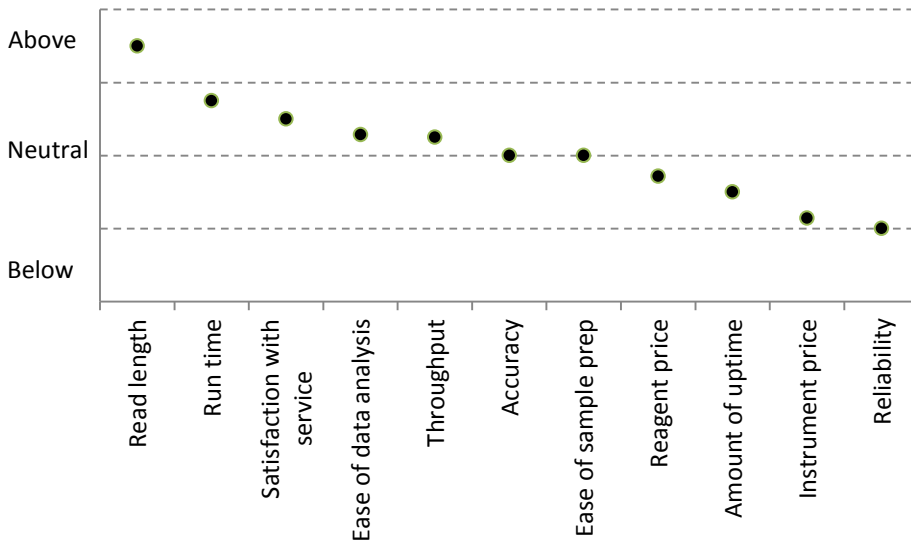
Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 12

Does the Roche/454 perform above, below or in line to your expectations on the following metrics?



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 22

Does the Pacific Biosciences RS perform above, below or in line to your expectations on the following metrics?



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 8



## SECTION 4: PURCHASING DECISION ASSESSMENT

### Summary: Purchasing Decision Factors for 'Large Box' Systems

	HiSeq 2000	SOLiD	Roche	PacBio
Accuracy	2.55	1.91	3.29	6.88
Throughput	2.55	2.64	4.95	5.13
Read length	4.45	5.91	1.62	1
Ease of sample prep	5.06	5.18	5.57	3.88
Reagent price	5.59	5.73	6.86	5.63
Reliability	5.78	5.55	5.86	6.5
Run time	5.94	5.91	4.81	2.75
Ease of data analysis	6.43	6.55	5.48	6
Instrument price	6.65	5.64	6.57	7.25

Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 49.  
 Note: 1 = "Most Important;" 9 = "Least Important." Blue = +1 standard deviation from average; Orange = -1 standard deviation from average.

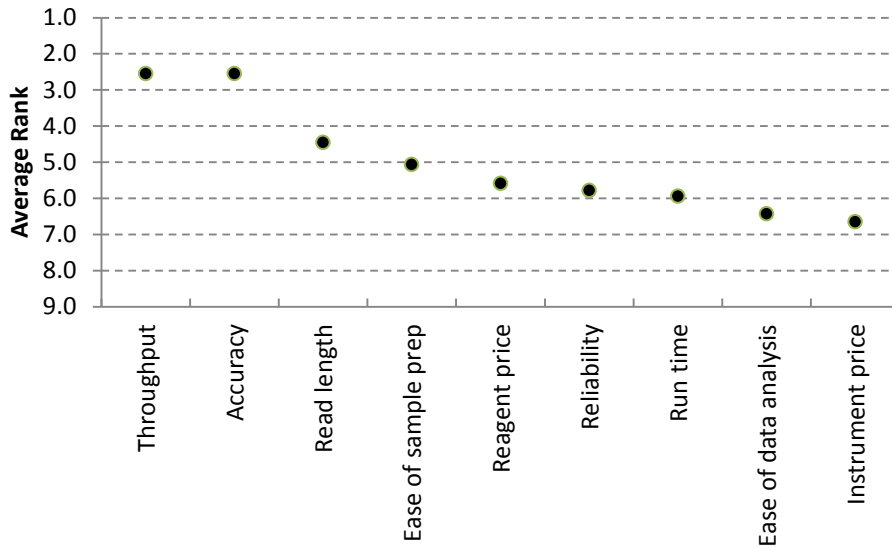
### Summary: Purchasing Decision Factors for Desktop Systems

	MiSeq	Ion Torrent
Accuracy	3.24	4.37
Read length	3.86	4.07
Throughput	4.1	3.67
Run time	4.29	3.07
Ease of sample prep	4.9	5.3
Price	5.71	4.81
Data analysis	6.05	6.52
Reagent price	6.29	5.63
Reliability	6.57	7.56

Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 27.  
 Note: 1 = "Most Important;" 9 = "Least Important." Blue = +1 standard deviation from average; Orange = -1 standard deviation from average.

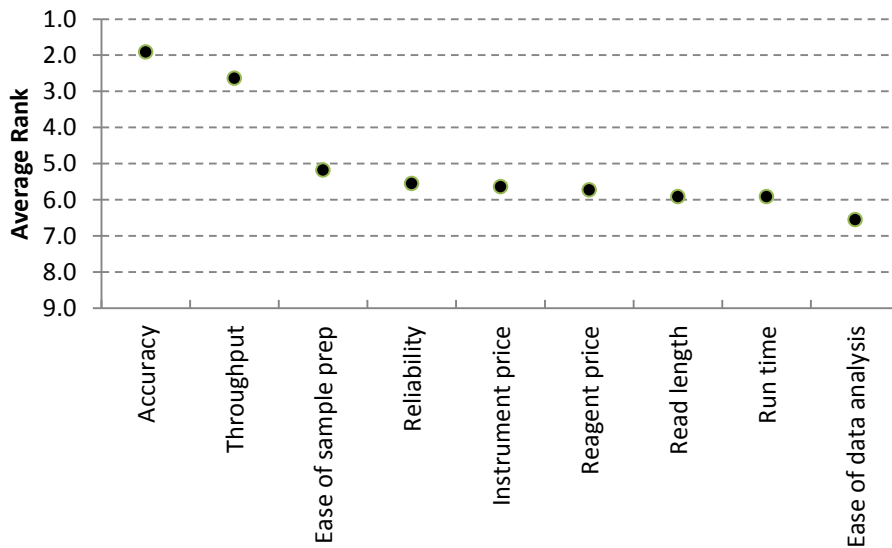
## Vendor-Specific Purchasing Decision Factors

Please rank the importance of the following factors in influencing your decision to purchase an Illumina HiSeq or GA IIX (1 is the most important factor, 9 the least).



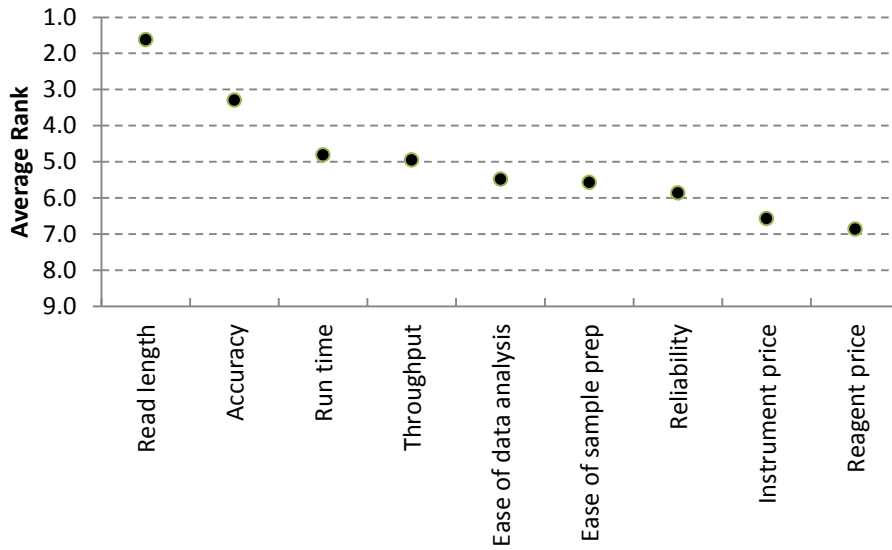
Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 49. Note: 1 = "Most Important;" 9 = "Least Important."

Please rank the importance of the following factors in influencing your decision to purchase a SOLiD (1 is the most important factor, 9 the least).



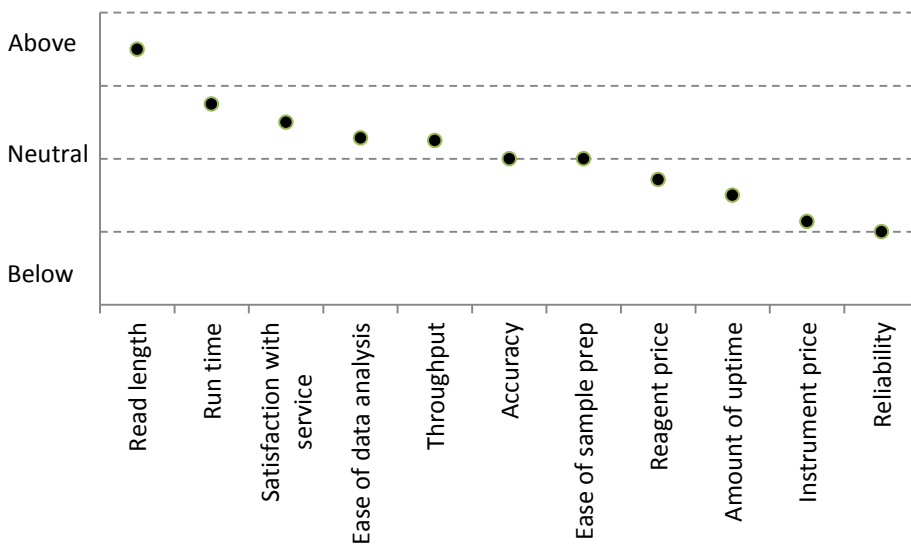
Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 11. Note: 1 = "Most Important;" 9 = "Least Important."

Please rank the importance of the following factors in influencing your decision to purchase a Roche/454 (1 is the most important factor, 9 the least).



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 21. Note: 1 = "Most Important;" 9 = "Least Important."

Please rank the importance of the following factors in influencing your decision to purchase a PacBio RS (1 is the most important factor, 9 the least).

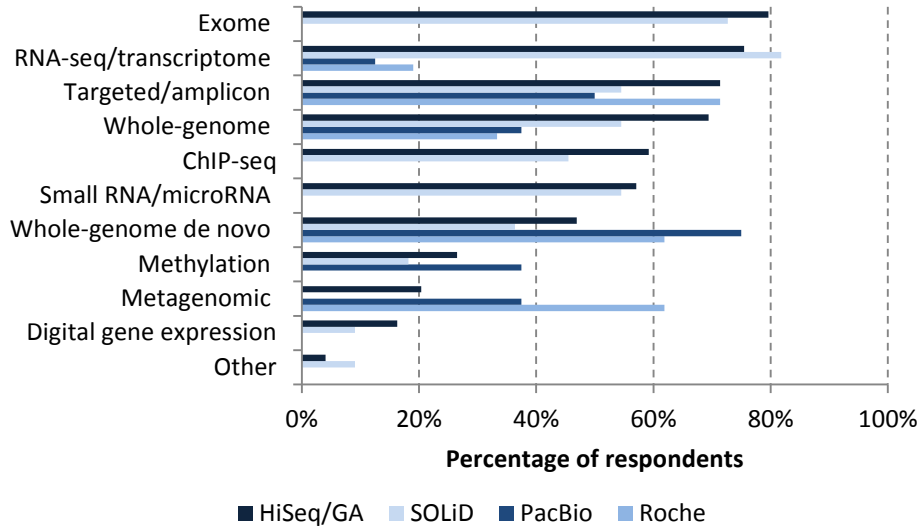


Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 8. Note: 1 = "Most Important;" 9 = "Least Important."

## SECTION 5: SEQUENCING TASKS AND PROJECTS

### Summary of Sequencing Tasks: 'Large Box' Systems

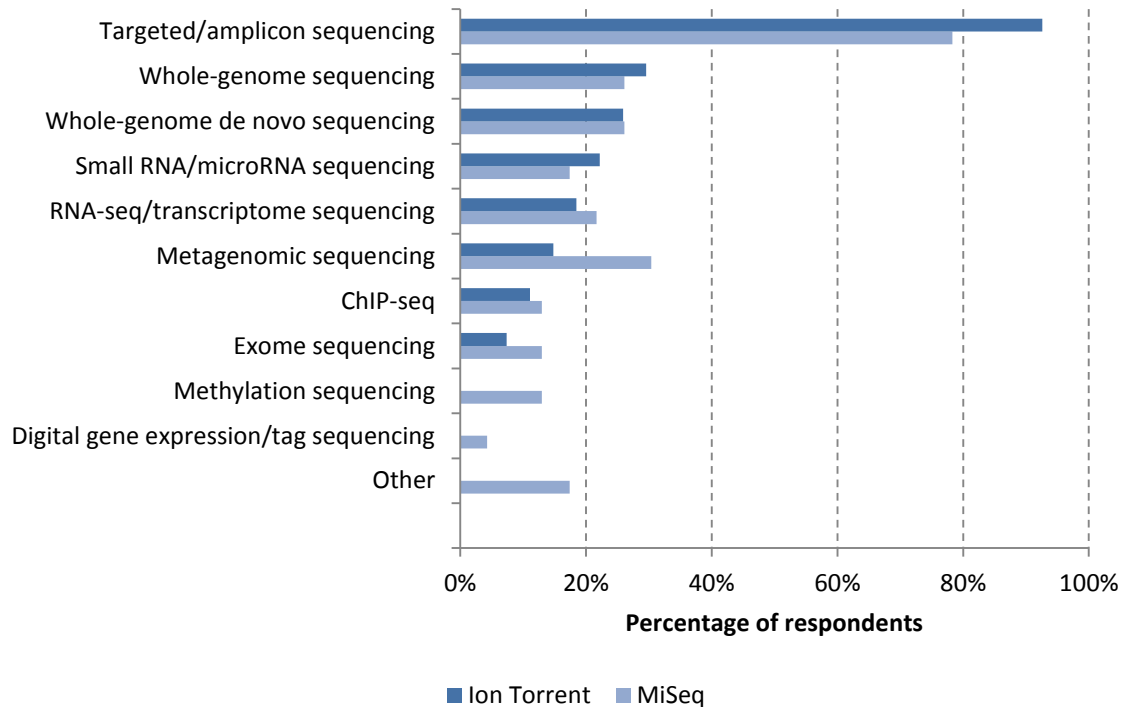
(percentage of users of each system who said they use it for a particular task)



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 49.

### Summary of Sequencing Tasks: Desktop Systems

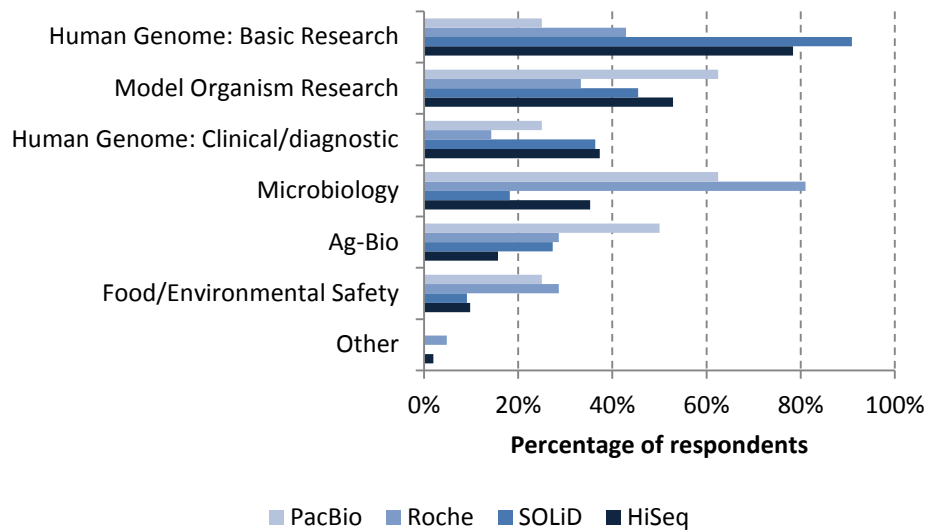
(percentage of users of each system who said they use it for a particular task)



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 27.

### Summary of Sequencing Projects: 'Large Box' Systems

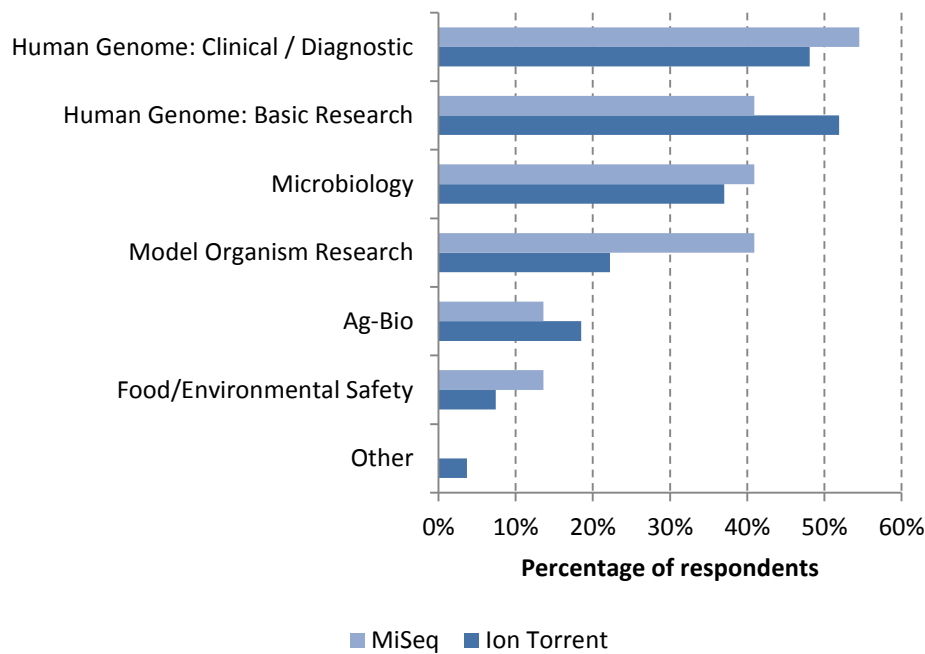
(percentage of users of each system who said they use it for a particular project)



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 49.

### Summary of Sequencing Projects: Desktop Systems

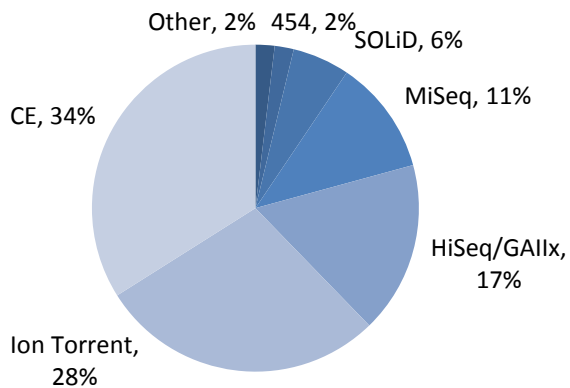
(percentage of users of each system who said they use it for a particular project)



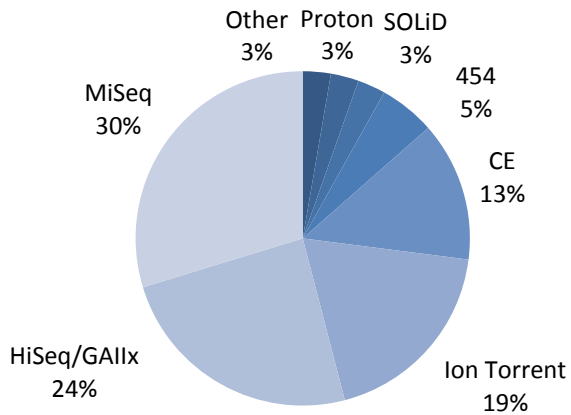
Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 27.

**What systems do you use for clinical diagnostic sequencing, and what systems will you be adding for that application in the next year?**

**Now**



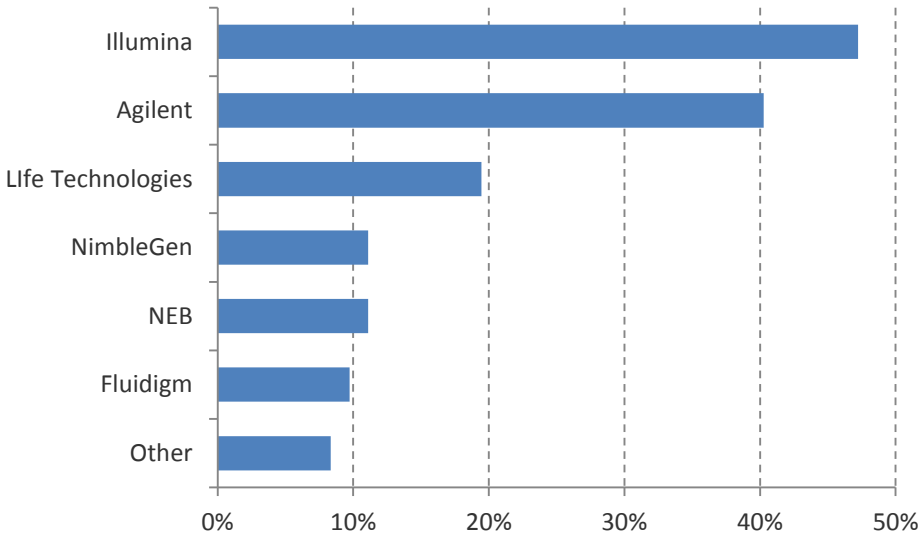
**In a Year**



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 37.

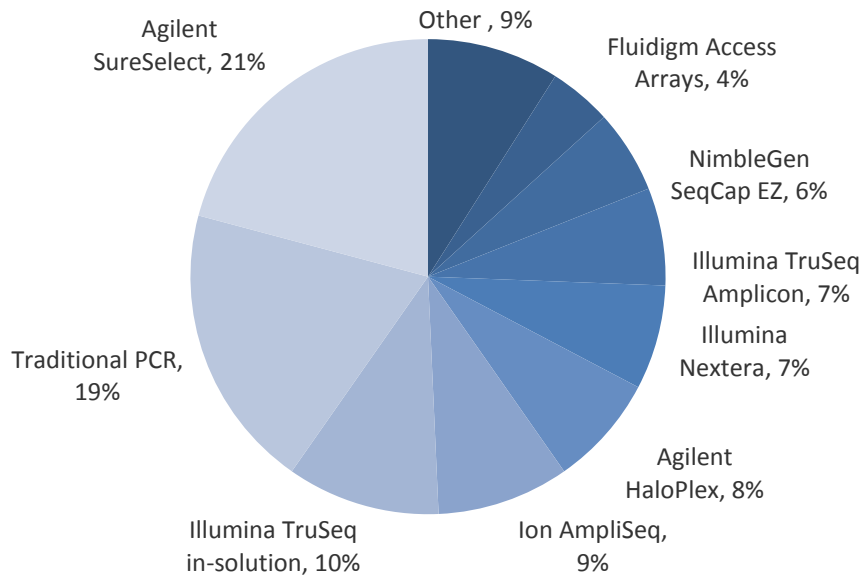
## SECTION 6: SAMPLE PREP AND TARGET ENRICHMENT

Which companies provide the best technologies for DNA sample prep for next-generation sequencing?



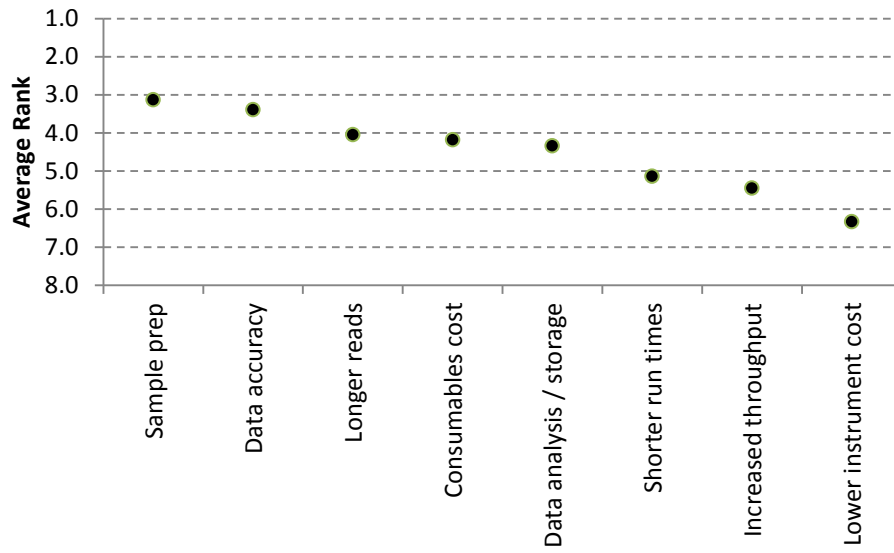
Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 72.

What DNA capture/enrichment or amplification method(s) do you use for targeted sequencing?



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 76.

Which potential improvements for next-gen sequencing do you consider the most important for your laboratory's needs (1 is most important, 8 is least important)?

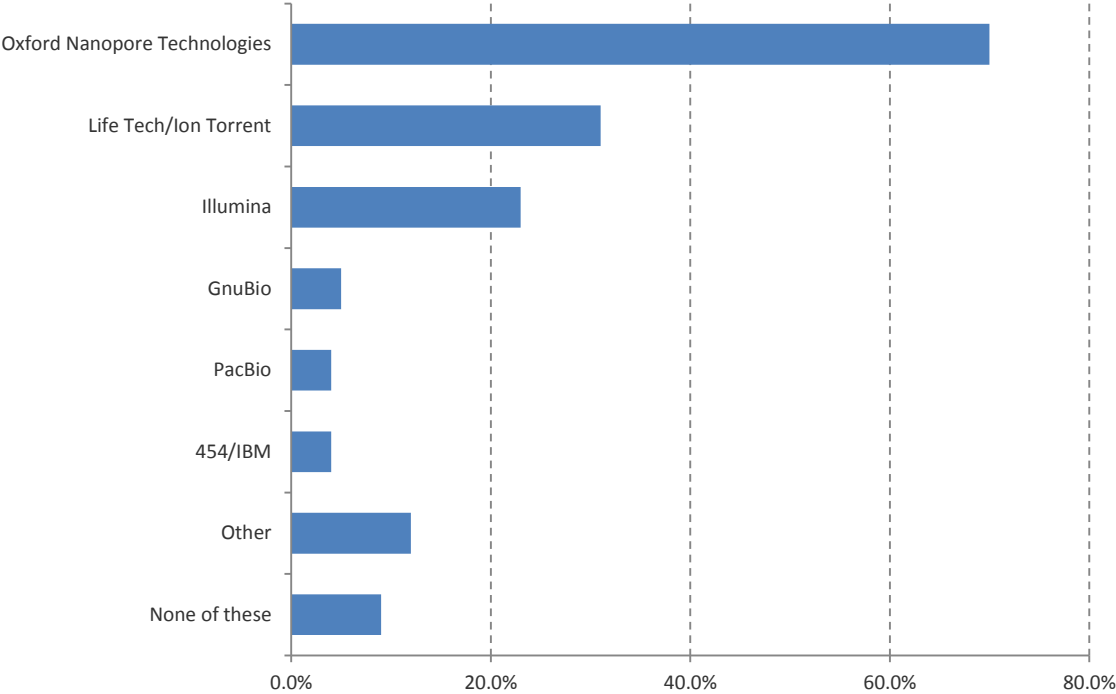


Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 85. Note: 1 = "Most Important;" 8 = "Least Important."



**SECTION 7: THE NEXT BIG LEAP**

**Whose new technology do you think will provide the next big leap in sequencing?**



Source: Mizuho Securities USA and *In Sequence* Sequencing Survey. Number of respondents = 100.